

**LPDES PERMIT NO. LA0124842 (Agency Interest No. 158540)**

**LPDES STATEMENT OF BASIS  
FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM  
(LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA**

- I. Company/Facility Name:** Dynamic Fuels, LLC  
Renewable Synthetic Fuels Geismar Plant  
P.O. Box 599  
Geismar, Louisiana 70734
- II. Issuing Office:** Louisiana Department of Environmental Quality (LDEQ)  
Office of Environmental Services  
Water Permits Division  
Post Office Box 4313  
Baton Rouge, Louisiana 70821-4313
- III. Prepared By:** Melanie Connor  
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**Date Prepared:** October 11, 2009

LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.4901, 4903, and 2301.F.

**IV. Permit Action/Status:**

**A. Reason for Permit Action:**

Proposed initial issuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2365/40 CFR 122.46.

In order to ease the transition from NPDES to LPDES permits, dual regulatory references are provided where applicable. The LAC references are the legal references while the 40 CFR references are presented for informational purposes

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only. In most cases, LAC language is based on and is identical to the 40 CFR language. 40 CFR Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903 and will not have dual references. In addition, state standards (LAC 33:IX. Chapter 11) will not have dual references.

- B. LPDES permit: N/A, first time permit issuance
- C. Application submittal date: Application submitted on October 6, 2009.

**V. Facility Information:**

- A. Location – 36191 Highway 30, Geismar, Ascension Parish (Latitude 30°12'6", Longitude 91°00'33").
- B. Applicant Activity -

According to the application, Dynamic Fuel, LLC is a proposed synthetic fuel manufacturing facility. The proposed facility will produce renewable fuels from animal and vegetable fats and oils using the Bio-Synfining process. This process converts lipids rich in triglycerides, such as chicken fat, into high quality fuel products, including diesel, jet fuel, naphtha and LPG. The process uses traditional refinery equipment such as distillation units and hydrotreaters, together with proprietary catalysts, to perform the conversion into hydrocarbons.

- C. Technology Basis - (40 CFR Chapter 1, Subchapter N/Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903)

Guideline Applicability

In recent years, biodiesel and/or synthetic fuel production has been classified under SIC Code 2869 – organic chemical manufacturing. Organic chemical manufacturing is generally covered under the Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) Guideline at 40 CFR 414. However, in accordance with the General Provisions located at 40 CFR 414, Subpart A, the provisions of those guidelines do not apply to any process wastewater discharges from the manufacture of organic chemical compounds solely by the extraction from plant and animal raw materials. Since the discharges from Dynamic Fuels, LLC are produced by the Bio-Synfining process, which uses animal and vegetable fats and oils as feedstock, the OCPSF Guidelines are not applicable. See Section VIII below for justification of permit limitations.

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- D. Fee Rate -
1. Fee Rating Facility Type: Minor
  2. Complexity Type: II (the complexity type has been assigned on a BPJ basis due to type of processes that take place at the facility)
  3. Wastewater Type: II
  4. SIC code: 2869

**VI. Receiving Waters:** Mississippi River (Outfall 001), and local drainage thence to New River thence to Lake Pontchartrain (Outfalls 002, 003 and 004)

Mississippi River (Outfall 001):

- A. River Basin: Mississippi River, Segment No.: 070301
- B. Designated Uses: primary contact recreation, secondary contact recreation, fish and wildlife propagation, and drinking water supply

Local drainage thence to New River thence to Lake Pontchartrain (Outfalls 002, 003 and 004):

- A. River Basin: Lake Pontchartrain, Segment No.: 040404
- B. Designated Uses: primary contact recreation, secondary contact recreation, fish and wildlife propagation

**VII. Outfall Information:**

Outfall 001

- A. Type of wastewater – The continuous discharge of effluent from various process drains, cooling tower blowdown, boiler blowdown, first flush process area stormwater runoff\*, water from sour water stripper, non-contaminated condensate from evaporator

\* First flush shall be defined as the first 1 inch of rainfall.

- B. Location – At the point of discharge at the metering station located in the southwest corner of the main tank farm containment area prior to combining with other waters. (Latitude 30°11'51", Longitude 91°01'19")
- C. Treatment – Oil/water separator
- D. Flow – Continuous, 0.03 MGD

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- E. Receiving waters – to the Mississippi River via LC Geismar Services' Outfall 001 (LA0006220 / AI 1093)
- F. Basin and segment – Mississippi River Basin, Segment 070301

Outfall 002

- A. Type of wastewater – The intermittent discharge of post first flush process area stormwater (stormwater accumulated after the first 1 inch of rainfall) and non-process area stormwater
- B. Location – At the point of discharge from the north side of the facility at the corner of Avenue E and 46<sup>th</sup> Street prior to combining with other waters (Latitude 30°12'12", Longitude 91°00'35")
- C. Treatment – None
- D. Flow – Intermittent, 0.051 MGD
- E. Receiving waters – to Lion Copolymer's Outfall 002 (LA0000752/AI 1433), thence to local drainage thence to New River thence to Lake Pontchartrain
- F. Basin and segment – Lake Pontchartrain Basin, Segment 040404

Outfall 003

- A. Type of wastewater – The intermittent discharge of non-process area stormwater
- B. Location – At the point of discharge from the east side of the facility between Avenues A and B prior to combining with other waters. (Latitude 30°12'06", Longitude 91°00'26")
- C. Treatment – none
- D. Flow – Intermittent, 0.016 MGD
- E. Receiving waters – to Lion Copolymer's Outfall 002 (LA0000752/AI 1433), thence to local drainage thence to New River thence to Lake Pontchartrain
- F. Basin and segment – Lake Pontchartrain Basin, Segment 040404

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Outfall 004

- A. Type of wastewater – The intermittent discharge of non-process area stormwater
- B. Location – At the point of discharge from the northwest side of the facility near the corner of Avenue E and 46<sup>th</sup> Street prior to combining with other waters (Latitude 30°12'12", Longitude 91°00'36")
- C. Treatment – none
- D. Flow – Intermittent, 0.047 MGD
- E. Receiving waters – to Lion Copolymer's Outfall 002 (LA0000752/AI 1433), thence to local drainage thence to New River thence to Lake Pontchartrain
- F. Basin and segment – Lake Pontchartrain Basin, Segment 040404

**VIII. Proposed Permit Limits and Rationale:**

A. Proposed Effluent Limitations

**Outfall 001** – The continuous discharge of effluent from various process drains, cooling tower blowdown, boiler blowdown, first flush process area stormwater runoff (first 1 inch of rainfall), water from sour water stripper, non-contaminated condensate from evaporator

Parameter	Proposed Permit Limitations		Monitoring Freq.	Rationale
	Monthly Avg	Daily Max		
Flow – MGD	Report	Report	Continuous	LAC 33:IX.2707.I.1.b
pH	6.0 s.u. (Min)	9.0 s.u. (Max)	1/month	LAC 33:IX.1113.C.1
TOC – mg/L	---	Report	1/month	BPJ, similar facility
Oil & Grease	15 mg/L	30 mg/L	1/month	BPJ, similar facility
BOD <sub>5</sub>	30 mg/L	45 mg/L	1/month	BPJ, similar facility
TSS	30 mg/L	45 mg/L	1/month	BPJ, similar facility

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**EFFLUENT LIMITATIONS BASIS for Outfall 001:**

**Flow:** The requirement to report flow is based upon LAC 33:IX.2707.I.1.b.

**TSS:** Limitations are based upon BPJ and permitting requirements of a similar facility (LA0123960/AI 147551).

**BOD<sub>5</sub>, TOC and Oil & Grease:** Limitations are based BPJ and permitting requirements of similar facilities (LPDES Permits LA0123960/ AI 147551 and LA0047546/AI 3133).

**pH:** Requirements are based upon LAC 33:IX.1113.C.1.

**Outfall 002** – The intermittent discharge of post first flush process area stormwater (stormwater accumulated after the first 1 inch of rainfall) and non-process area stormwater

**Outfall 003** – The intermittent discharge of non-process area stormwater

**Outfall 004** – The intermittent discharge of non-process area stormwater

Parameter	Proposed Permit Limitations		Monitoring Freq.	Rationale
	Monthly Avg	Daily Max		
Flow - MGD	Report	Report	1/quarter	LAC 33:IX.2707.I.1.b.
pH	6.0 s.u. (Min)	9.0 s.u. (Max)	1/quarter	LAC 33:IX.1113.C.1.
TOC	----	50 mg/L	1/quarter	LDEQ stormwater guidance
Oil & Grease	----	15 mg/L	1/quarter	LDEQ stormwater guidance

**EFFLUENT LIMITATIONS BASIS for Outfalls 002, 003 and 004:**

**Flow:** The requirement to report flow is based upon LAC 33:IX.2707.I.1.b.

**TOC and Oil & Grease:** Limitations are based upon LDEQ's stormwater guidance [letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)].

**pH:** Requirements are based upon LAC 33:IX.1113.C.1.

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**B. Monitoring Frequencies**

Monitoring frequencies for all outfalls are based upon office guidance for similar discharges.

**IX. Compliance History/DMR Review:**

No current enforcement history available. This is a proposed facility.

**X. Endangered Species:**

The receiving waterbodies for Dynamic Fuels, LLC are Subsegment 070301 of the Mississippi River Basin and Subsegment 040404 of the Lake Pontchartrain Basin. Segment 070301 of the Mississippi River Basin has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the Pallid Sturgeon. However, in accordance with the Implementation Strategy, no consultation with the U.S. Fish and Wildlife Service (FWS) is required because the facility is not expected to discharge any of the substances listed in Section II.2. This strategy was submitted with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

**XI. Historic Sites:**

The discharge will be from a proposed facility. LDEQ has consulted with the State Historic Preservation Officer (SHPO) in a memorandum dated October 6, 2009, to determine whether construction-related activities could potentially affect sites or properties on or eligible for listing on the National Register of Historic Places. In accordance with the "Memorandum of Understanding (MOU) for the Protection of Historic Properties in Louisiana Regarding LPDES Permits," if no comments are received by LDEQ within the 30-day comment period, the LDEQ may consider that the SHPO has waived the right to provide comments, and the LDEQ may proceed with the permitting action. To date, SHPO's response letter has not been received.

**XII. Tentative Determination:**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharges described in the application.

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### **XIII. Variances:**

No requests for variances have been received by this Office.

### **XIV. Public Notices:**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

A public notice will be published in a local newspaper of general circulation and in the Office of Environmental Services Public Notice Mailing List.

### **XV. TMDL Waterbodies:**

Dynamic Fuels, LLC discharges process area stormwater, utility wastewaters, evaporator condensate, process drains effluent, and sour water stripper effluent to the Mississippi River (Segment 070301). Segment 070301 is not listed on LDEQ's Final 2006 303(d) List, as impaired, and to date no TMDLs have been established.

The facility also discharges post first flush process areas stormwater runoff and non process area stormwater runoff to Segment 040404 of the Lake Pontchartrain Basin. This segment is currently impaired for organic enrichment/low DO and pathogen indicators. TMDLs are scheduled for completion by March 31, 2011, with an EPA backstop date of March 31, 2012. This Office has determined that due to the nature of the discharges from the proposed facility, there is no potential to discharge pollutants that could contribute to organic enrichment or pathogen indicators at a level that could cause or contribute to further impairment of the receiving stream.

A reopener clause will be included in the permit to allow for the establishment of more stringent effluent limitations and requirements as imposed by any future TMDLs.

### **XVI. Stormwater Pollution Prevention Plan (SWP3) Requirements:**

In accordance with LAC 33:IX.2707.1.3 and 4 [40 CFR 122.44(I)(3) and (4)], a Part II condition is proposed for applicability to all storm water discharges from the facility, either through



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permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. For first time permit issuance, the Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. For renewal permit issuance, the Part II condition requires that the Storm Water Pollution Prevention Plan (SWP3) be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference to the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2522.B.14 [40 CFR 122.26(b)(14)].

#### **XVII. Permit Reopener Clause**

The draft permit has incorporated a requirement for the permittee is to submit the appropriate portions of Section III of LDEQ's industrial wastewater discharge permit application form (IND) no later than two years after the commencement of discharge from the proposed facility as per LAC 33:IX.2501.K.5.f. Upon submittal of appropriate Items, LDEQ may choose to modify, or alternatively revoke and reissue this permit to change effluent limitations based on the actual reported flow or production. Additionally, the permit may be reopened to incorporate the results of any total maximum daily load allocation, which may be approved for the receiving water body.